

RARE AND PRECIOUS METALS  
EXPERIMENT STATION

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF MINES  
REGION II

1605 EVANS AVENUE  
RENO, NEVADA

July 28, 1959

Health Physics Division  
U. S. Naval Radiological Defense Laboratory  
Hunters Point  
San Francisco 24, California

Gentlemen:

When I visited your laboratory about two years ago, Mr. Moyer, Personnel Director, explained the various methods employed for radioactive waste disposal. He suggested that if it became necessary for our radiochemistry laboratory to dispose of radioactive solids arrangements could be made to have your laboratory handle such disposal.


One of our laboratories chemically leaches a euxenite carbonate material, which is a residue from previous commercial processing to remove uranium, to separate the rare-earth group of elements. The remaining gangue is mainly an iron-carbonate-oxide containing radioactive material tentatively identified as Ra - Pb in the uranium decay series. The activity, based on both beta and alpha counting, is about 20 microcures per pound or about 16 millicuris for approximately 800 pounds. This solid waste is contained in four 50 gallon steel drums.

Another research project involves the small scale production of uranium metal by an electrowinning process. The radioactive wastes accumulated from this project are mainly electrolytic cell materials plus a small amount of U-Mg-Ba fluoride electrolyte, having a total activity of about  $\frac{1}{2}$  millicurie. The waste material is contained in one 50 gallon drum.

Under provisions of part 20, AEC Title 10, Section 20. 301, it is permissible to dispose of radioactive solids by transfer to an authorized recipient. It would be most convenient and helpful if such an arrangement could be made with your laboratory whereby the 5 barrels described could be shipped for proper disposal. It is not anticipated that this service would be necessary over once annually.

We would greatly appreciate knowing whether it is feasible for your laboratory to handle this waste disposal service.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Howard H. Heady".

Howard H. Heady  
Radiation Safety Supervisor